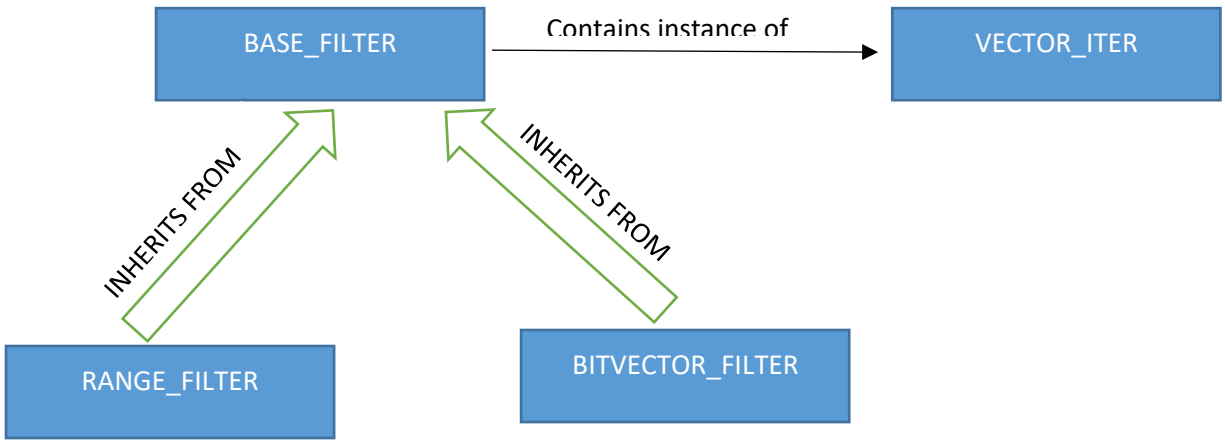
## 1. Class Diagram




## 2. VECTOR_ITER

VECTOR_ITER is an iterator class, which takes input as Lua Table or Vector. If the argument is a Vector, the class will convert the Vector argument into a Lua Table whose value will be the Vector passed. In the constructor of VECTOR_ITER, the iterator function is registered depending on whether the value passed is Vector or Scalar. It has a function get_row_iterator, which returns the next row (concatenation of each element of vector separated by comma).

For example, if there are 2 vectors with value {1,2,3} and {1,2} ,then following will be the output

1. First call to get_next_row - 1,1
2. Second call to get_next_row - 2,2
3. Third call to get_next_row - 3,

So the call to get_row_iterator of VECTOR_ITER, will return each and every row of Vector. The function get_row_iterator will internally call get_cell_iterator, which return each element of Vector.

## 3. FILTER Classes

BASE_FILTER is a type of Decorator class which contains an instance of VECTOR_ITER class. It will also contain the function get_next_row.

For each PRINT FILTER OPTION, a Derived class will be created from BASE_FILTER. There are 2 options for PRINT FILTER at present. So 2 Derived classes are created here – RANGE_FILTER and BITVECTOR_FILTER. Each of the derived class will override the get_row_iterator function of BASE_FILTER. In this function, logic will be added to provide the output depending on the type of FILTER OPTION.

The function get_row_iterator of RANGE_FILTER class will return only those rows which fall between lower and upper value. The function get_row_iterator of BITVECTOR_FILTER will return only those row whose bit value is set.

## 4. COMPLTED

1. Testing Print Vector script with I1,I2,I4,I8,F4,F8,SC,SV
2. Range_Filter Implementation

## 5. PENDING

1. Implementation of BITVector_Filter class
2. TestCases of LuaUnit related to PRINT
3. README.sh script
4. Testing BitVector with print_vector script
5. Testing with Null Vector. This will be done while testing  Column Class with print script

## 6. LIMITATION

1. Implementation of Range_Filter is such that the get_row_iterator has to mandatory traverse through each row unit the minimum range given in Filter options. Suppose if the minimum range given is 1000, then get_row_iterator will be executed 1000 times, before giving any output